AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A composition to inhibit N-methyl-D-aspartate activity comprising:

an adeno-associated virus vector ~~a vector~~ comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor-1 antigen operably linked to a promoter and capable of being expressed in a subject to elicit production of NMDA receptor-1 antibodies that inhibit NMDA activity, and

a pharmaceutically-acceptable carrier.

2. (Previously Presented) The composition of claim 1, wherein the produced antibodies bind to an NMDA receptor in the central nervous system.

3.-9. (Canceled)

10. (Previously Presented) The composition of claim 1, wherein the composition is a preparation for oral administration.

11. (Currently Amended) A method comprising the step of administering ~~a~~ an adeno-associated viral (AAV) vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor-1 antigen operably linked to a promoter and capable of being expressed in a subject to elicit production of NMDA receptor-1 antibodies, and a pharmaceutically-acceptable carrier to a subject, whereby the produced NMDA receptor-1 antibodies are capable of passing across a blood-brain barrier into a central nervous system following a neuronal insult to inhibit NMDA activity.

12. (Currently Amended) A method comprising: administering a composition to a subject to inhibit N-methyl-D-aspartate activity comprising a ~~vector~~ composition comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor-1 antigen, and a pharmaceutically-acceptable carrier, wherein the antigen elicits the production of NMDA receptor-1 antibodies in a circulatory system of the subject which bind to an NMDA receptor-1 in the central nervous system to ameliorate epilepsy or stroke in the subject.

13.-19. (Canceled)

20. (New) The method of claim 12 wherein the method further comprises administering a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor-1 antigen operably linked to a promoter and capable of being expressed in the subject.

21. (New) The method of claim 20, wherein the vector is a viral vector.

22. (New) The method of claim 21, wherein the viral vector is selected from the group consisting of an adeno-associated virus vector, an adenovirus vector, a herpes virus vector, a parvovirus vector, and a lentivirus vector.

23. (New) The method of claim 22, wherein the viral vector is an adeno-associated virus vector.

24. (New) The method of claim 12, wherein the composition further comprises a colloidal dispersion system.

25. (New) The method of claim 12, wherein the composition further comprises an injectable particle coated with the nucleic acid sequence.

26. (New) The method of claim 12, wherein the composition is a preparation for oral administration.

27. (New) The method of claim 12, wherein the composition is a preparation for intravenous injection.

28. (New) The method of claim 12, wherein the composition is a preparation for intramuscular injection.